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ABSTRACT

Two groups of learning disabled (LD) secondary school students (ages 16-18) were studied to determine if such factors as levels of intelligence and achievement contribute to success in high school. The first group of students (N=10) were sophomores enrolled in special education resource classes for one period each day and were addressing Louisiana state criteria for high school graduation. The second group of students (N=10) were second-year students enrolled in an alternative special education program addressing separate minimum standards and pursuing a certificate of achievement. The study sought to identify and compare differences in intelligence and achievement that resulted in the students being placed in one group or the other. Results indicated a significant difference between the two groups in educational achievement scores, particularly in reading and arithmetic, favoring the first group comprised of resource students. No significant differences appeared for IQ scores. (VW)

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# A STUDY OF SELECTED LEARNING DISABLED STUDENTS IN SECONDARY RESOURCE AND ALTERNATIVE PROGRAMS RELATIVE TO LEVELS OF INTELLIGENCE AND ACHIEVEMENT

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# A STUDY OF SELECTED LEARNING DISABLED STUDENTS IN SECONDARY RESOURCE AND ALTERNATIVE PROGRAMS RELATIVE TO LEVELS OF INTELLIGENCE AND ACHIEVEMENT

## Statement of the Problem

The problem in this study was to determine the relationship between selected secondary learning disabled students in special education resource classes and alternative special education programs relative to their levels of intelligence and achievement. A null hypothesis approach was used to test for significant differences.

## Related Literature

It has been apparent that learning disabled students experience failure in regular educational programming. Even though specially designed instruction is provided through resource programs, many of these students are unable to meet state and parish standards for promotion. At some point in their school experiences, certain students are placed in alternative programs, where they address separate standards designed for mildly handicapped students. Yet, other students are able, with the support of resource classes, to continue through school and eventually graduate with a high school diploma (Bulletin 1508, 1983; Centra, J.A., 1986; Cohen, 1986; Rogers & Saklofske, 1985).

Social skills competencies are necessary for successful performance in secondary mainstream settings. Three broad areas of such skills have been identified as (1) exhibiting appropriate work habits, (2) respecting others and their property, and (3) following school rules. Social skills coupled with IQ and support classes have lead to successful achievement of a high school diploma (Salend & Salend, 1986; Strauser & Weller, 1985). Work has also been done with IQ and achievement in reading and math and their relationship to successfully completing high school (Levin, Zigmond, & Birch, 1985; Piotrowski & Siegel, 1986).

## Procedure and Findings

The procedure used in this study was to compare two groups of secondary learning disabled students. An attempt was made to determine if certain factors, namely levels of intelligence and achievement, contribute to success in high school. Group one consisted of those students addressing state criteria for high school graduation, while enrolled in special education resource classes for one period each day. Group two was composed of those students enrolled in an alternative special education program, addressing separate minimum standards and pursuing a certificate of achievement. There were ten students in each group.

In order to reduce the amount of uncontrolled variance the groups were matched by age and years in school. The students selected for group inclusion for this study ranged between the ages of sixteen and eighteen years. The students were enrolled as high school sophomores or alternative students in the second year of the secondary program. All students had been evaluated by a multi-disciplinary team and were classified Learning Disabled according to the State of Louisiana Department of Education Pupil Appraisal Handbook - Bulletin 1508. All of the students were initially identified prior to the 1983 revision of this document.

Since all students were within the specified chronological age range, the question arose as to which factors, if any, may predict group inclusion into resource or alternative programs. The variables of intelligence and achievement were chosen as a basis for comparison. Full scale, verbal, and performance scores on the WISC-R (Wechsler Intelligence Scale for Children - Revised) as well as reading and arithmetic scores on the WRAT (Wide Range Achievement Test) were chosen because of availability and usefulness of these scores for comparison purposes. A review of records was the method used to obtain data. The achievement scores were results reported from the spring of 1986. Mean standard scores were reported as comparison references for both groups.

Tables one and two which follow provide descriptive results of the individual students in each group as well as the mean scores used for comparison of the group.

The two groups of secondary learning disabled students were compared on the variables of intelligence (full scale, verbal, and performance); and achievement (reading and arithmetic). The students in group one were resource students classified as sophomores. The mean scores of group one follow: IQ-FS = 84.2, IQ-V = 84.1, IQ-P = 86.9, Reading = 89.6, and Arithmetic = 86.3. The students in group two were second year alternative students in the secondary program. The mean scores of group two follow: IQ-FS = 87.0, IQ-V = 86.0, IQ-P = 90.1, Reading = 71.5, and Arithmetic = 78.8.

T-test between two independent means was conducted in order to determine if significant differences existed between IQ scores and achievement scores of both groups. The null hypothesis was found to be tenable for IQ scores at the .05 level with df = 18. However, the null hypothesis was rejected at this same level for achievement scores in reading and arithmetic. Therefore we can state that there was a significant difference between educational achievement scores favoring the resource students.

## Summary

When considering the mean scores for comparison of the two groups it appears that the only differences that may be significant are those of achievement in reading and arithmetic. All other variables considered appear to be of no significant difference.

For the purpose of placement decisions and programming, achievement scores should be given specific attention. Questions arise in view of these results. If IQ scores are not statistically different and achievement scores are, what other variables should we consider as contributing to the success or lack of success in school achievement?

TABLE I

SOPHOMORES IN RESOURCE PROGRAM

| | IQ-FS | IQ-V | IQ-P | Reading | Arithmetic |
|---|---|---|---|---|---|
| | 87 | 98 | 77 | 110 | 91 |
| | 81 | 79 | 86 | 72 | 98 |
| | 88 | 81 | 98 | 97 | 81 |
| | 82 | 86 | 81 | 87 | 91 |
| | 91 | 81 | 104 | 70 | 86 |
| | 88 | 85 | 93 | 85 | 86 |
| | 79 | 84 | 77 | 99 | 88 |
| | 87 | 88 | 88 | 85 | 77 |
| | 79 | 82 | 78 | 85 | 74 |
| | 80 | 77 | 87 | 106 | 91 |
| Mean | 84.2 | 84.1 | 86.9 | 89.6 | 86.3 |

TABLE 2

SECOND YEAR ALTERNATIVE STUDENTS

| IQ-FS | IQ-V | IQ-P | Reading | Arithmetic |
|---|---|---|---|---|
| 110 | 113 | 105 | 70 | 88 |
| 84 | 81 | 88 | 57 | 72 |
| 82 | 74 | 93 | 77 | 76 |
| 70 | 85 | 58 | 72 | 89 |
| 87 | 79 | 98 | 62 | 72 |
| 89 | 98 | 82 | 91 | 70 |
| 76 | 78 | 77 | 67 | 74 |
| 76 | 73 | 82 | 58 | 86 |
| 107 | 91 | 126 | 94 | 72 |
| 89 | 88 | 92 | 67 | 89 |
| Mean 87.0 | 86.0 | 90.1 | 71.5 | 78.8 |

Availability of information, retrospective study limitations and influence of other variables should be considered when interpreting results. A future study might address other factors that might influence the discrepancy between IQ scores and achievement scores for the alternative students. Factors such as school history, home environment, attendance, self-concept, learning styles, and levels of motivation may contribute to the reduced levels of achievement found in the alternative group.

In order that optimal educational opportunities may be afforded each individual student, it is imperative that educators identify factors that may contribute to successful performance in school. Identification and development of these success factors might positively influence the success of secondary learning disabled students. Conversely, if it becomes evident that a particular student is in fact unable to successfully complete requirements for high school graduation, maximum opportunities could be provided through alternative programming focused on the maximum potential of each individual student.

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